

ANTIBIOTIC TREATED IMPLANTABLE MEDICAL DEVICES

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This application is a continuation-in-part application of copending U.S. patent Application Serial No. 09/359,235, filed July 22, 1999, which is a continuation-in-part application of U.S. patent Application Serial No. 09/232,922, filed January 19, 1999, ^{^ New patent number 6528107,} now abandoned. This application is also a continuation-in-part application of
5 copending U.S. patent Application Serial No. 09/605,804, filed June 28, 2000. ^{^ now abandoned}

FIELD OF THE INVENTION

This invention generally concerns medical devices intended for implantation into patients. More particularly, this invention relates to incorporation of
10 antimicrobial substances in medical devices to inhibit pannus overgrowth on or near the medical device after its implantation.

BACKGROUND

Implantable medical devices have become critical in the management of a
15 variety of human diseases and other conditions. The term "implantable medical device" refers to a medical device that is intended for long-term implantation within the body of a patient, i.e., implantation for periods substantially exceeding one month. One significant class of implantable medical devices is prosthetic heart valves, which are used to replace diseased and/or damaged natural heart valves. Implantable
20 medical devices also include annuloplasty rings, internal pacemakers, and artificial hip and knee prostheses, among others. The term "insertable medical device" refers to a medical device, that may be placed within the body of a patient for short-term periods, typically a few days but less than one month. Insertable medical devices include venous and urinary catheters, among others.

25 Although their development has saved countless thousands of lives and improved the quality of life for millions of patients, implantable medical devices do have certain risks of complications, including inflammatory tissue responses to the implant. Serious inflammatory tissue responses following implantation occur relatively infrequently in humans, but when present they can produce costly